

Service Date: August 17, 1988

DEPARTMENT OF PUBLIC SERVICE REGULATION  
BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MONTANA

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IN THE MATTER Of the Application	)	
Of MONTANA POWER COMPANY to	)	Docket No. 87.4.21
Restructure Electrical Rates.	)	
IN THE MATTER Of the Application	)	
Of MONTANA POWER COMPANY For	)	Docket No. 86.6.29
Authority,~r To Implement an Electric	)	
Economic Incentive Rate.	)	
IN THE MATTER Of the Application	)	
Of MONTANA POWER COMPANY For	)	
Authority To Establish Ar. Electric	)	Docket No. 85.9.40
Industrial Retention/Interruptible	)	
Rate For Stauffer Chemical Co.	)	
IN THE MATTER Of the Application	)	
Of MONTANA POWER COMPANY To Change	)	Docket No. 85.11.49
The Availability Criteria In The	)	
Electric Contract Tariff.	)	
IN THE MATTER Of the Complaint Of	)	
MONTANA REFINING COMPANY,	)	
Complainant,	)	Docket No. 86.12.50
vs . MONTANA POWER COMPANY,	)	
Defendant.	)	ORDER NO. 5340c

APPEARANCES

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BEFORE:

CLYDE JARVIS, Chairman, Presiding  
HOWARD L. ELLIS, Commissioner  
TOM MONAHAN, Commissioner  
DANNY OBERG, Commissioner  
JOHN B. DRISCOLL, Commissioner

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## FINDINGS OF FACT

### PART A

#### BACKGROUND

1. The Montana Power Company (hereafter MPC, Company, or Applicant) is a public utility furnishing electric service in the State of Montana, and is subject to the regulatory jurisdiction of the Public Service Commission (PSC or Commission). The Company serves approximately 242,000 electric customers in Montana.

2. On April 9, 1987, MPC filed with the Commission its application for authority to restructure electric rates.

3. Pursuant to the Notice of Public Hearing, a hearing was held in Helena, Montana, commencing on Monday, November 2, 1987 and ending on Thursday, November 5, 1987.

4. On April 22, 1988, the Commission issued Order No. 5340 deciding the cost of service issues in this proceeding.

5. On May 20, 1988 the Montana Consumer Counsel filed a Motion for Reconsideration of Order No. 5340.

6. On June 29, 1988, the Commission issued Order No. 5340a on the Motion for Reconsideration of Order No. 5340.

7. On July 11, 1988, the Industrial Intervenors filed a Motion For Reconsideration of Order No. 5340a.

8. On July 29, 1988, the Commission issued Order No. 5340b dismissing the Motion For Reconsideration of the Industrial Intervenors.

### PART B

#### RATE DESIGN

9. Introduction. In the cost of service (COS) portion of a general rate case, marginal costs are functionalized, classified, and reconciled; resulting in a reconciled marginal cost based revenue requirement for each class. In the rate design portion of the rate case, prices are designed to recover reconciled marginal costs. In the COS order, Order No. 5340, the term "energy" refers to the variable costs of producing electricity. In this Order, the term "energy" refers to electricity as a commodity for final consumption. Energy is sold on a kilowatt-hour basis, and referred to as the

price of energy or an energy charge. Similarly, the term "demand" refers to a customer's peak load, which is sold on a per kilowatt basis and referred to as a demand charge.

### MPC Rate Design

10. Overview. Dr. Spann summarizes the Company's proposed rate design priorities in this proceeding. MPC proposes to:

1. Increase demand charges (in rates which have both demand and energy charges) as close as possible to the full level of marginal demand charges.
2. Increase winter rates relative to summer rates to reflect higher marginal costs in the winter than in the summer.
3. Not allow an energy charge to fall below full short run marginal costs.
4. Check bill impacts while applying steps 1 and 2 to insure that large sudden changes and/or adverse bill impacts are avoided (Exh. 7, p. 20).

MPC bases these proposals on its 1986 Loads and Resources Plan, which indicates that MPC will be capacity surplus for the next nine years, and energy surplus for the next 17 years (Exh. 9, p. 11).

11. Residential. The Company's first step in designing residential rates is to set the monthly service charge at 55 percent of marginal cost (or 75 percent of moderated marginal cost). MPC's current customer charge is 48 percent of marginal cost, and the Company states that it is not proposing to set the customer charge any higher to mitigate billing impacts on low-usage customers (Exh. 3, pp. 7, 8).

12. The pricing relationship between winter and summer prices is generally presented in terms of a ratio of winter prices to summer prices. The winter/summer (W/S) price ratio is calculated by dividing the winter price by the summer price. MPC indicates that its COS study supports a W/S differential of 1.5 for residential energy prices, meaning that winter prices should be 1.5 times higher than summer. Currently, MPC's residential W/S ratio is 1.3. Although the Company's COS study justifies a 1.5 W/S ratio, MPC proposes moderating customer impacts by increasing the W/S

differential to 1.4 (Exh. 3, p. 8). For comparison, MPC's Compliance filing justifies increasing this ratio to 1.46 (Compliance filing of June 7, 1988, Attachment #4, p. 3, line 8).

13. Residential Employee. MPC employees receive a 40 percent discount to their total utility bill. The Company correctly recovers the cost associated with the discount from all customers by identifying employees as a separate rate class for COS/RD purposes. MPC proposes a residential employee tariff with customer and commodity prices reflecting a 40 percent discount from residential tariffs (Exh. 3, p. 10).

14. General Service. During the course of this proceeding, MPC filed two General Service (GS) rate design proposals. In its initial testimony MPC proposed a consolidation of two current rate classes, and in rebuttal testimony MPC proposed a reclassification of customers from one existing class to another existing class. The Commission will first present a discussion of the Company's original GS rate design proposals, followed by a discussion of its rebuttal GS rate design proposals.

15. The Company initially proposed combining the present General Electric (GE) and Electric Contract (E.C.) rate classes into a single rate class, the General Service (GS) rate class. Dr. Spann justified the rate class merger on the grounds that, "a single general service rate can reflect costs on MPC system without violating other components of the Company's pricing philosophy" (Exh. 7, pp. 24, 25). Another factor in the Company's original proposal was the existence of a crossover problem between the GE and E.C. classes (Exh. 3, p. 10). Crossover problems exist when customers in one rate class have service characteristics that are similar to customers in another rate class. Customers in MPC's current GE rate class were meeting all the availability criteria for the E.C. class, with the exception of the requirement that the customer be served off a 50 kV, or greater, power line (Exh. 4, p. 4). This crossover problem led to a complaint by Montana Refining Company, which was consolidated into this Docket (Docket No. 85.12.50).

16. The Company's distribution engineering department, responding to data requests in this proceeding, developed four levels of service definitions designed to alleviate the current crossover problems:

Transmission. Service delivered and metered at transmission voltages of 50 kV or greater.

Substation. Service where a Company-owned substation provides a transformation from transmission level service to the customer delivery voltage at the substation.

Primary. Service delivered on a high voltage circuit (2.4 to 34.5 kV) of some length between the substation and the customers point of delivery, which is metered at that delivery voltage.

Secondary. Primary service with an additional transformation to customer delivery voltage. Additionally, consumption is metered at the secondary voltage level.

Source: (Exh. 4, pp. 9-10).

17. During the course of this proceeding, MPC performed a survey to gather additional information on service characteristics of its larger GE customers. The results of this survey allowed MPC to identify the majority of transmission and substation level customers (see MPC RDR PSC 1-30). Using the results of this survey, the four service level definitions listed above, and the cost of service study as updated in data request PSC 1-31, the Company submitted an "alternative rate design proposal" in the rebuttal phase of this proceeding (Exh. 4, pp. 10-15).

18. The Company's alternative rate design proposal places all current GE customers served at the transmission and substation levels, and all current EC customers on a separate tariff called General Service 2 (GS-2). The remaining GE customers are placed into the GS-1 service class (Exh. 4, pp. 11-14).

19. The Company's proposed reclassification of General Service primary customers to the Transmission/Substation rate class is accompanied by a shift in the reconciled marginal revenue responsibility associated with those customers. This results in a shift of \$8,787,204 of revenue responsibility from the GS-1 class to the GS-2 class (MPC's June 7, 1988 Compliance Filing, p. 5 of 41).

20. MPC's proposed GS-1 and GS-2 rate design sets the price of demand at 85 percent of billing demand marginal costs. (Exh. 4, PRC-6, p. 1/2 and PRC-3, p. 1/1). The GS-1 service class includes both demand and nondemand metered customers. The Company's analysis indicates that most GS-1 customers who use more than 2,500 kWh, or about 10 kW, per month currently have a demand meter installed. The Company proposes not to charge for the first 10 kW of demand, but

rather, to recover those costs from demand and nondemand metered customers in the form of higher energy prices for the first 2,500 kWh (Exh. 3, pp. 11, 12).

21. The Company's COS supports increasing the GS-1 W/S energy price ratio to 1.32 (Exh. 1, p. 1/137). Although the Company's number two rate design priority is to increase the W/S energy price ratio, MPC proposes retaining the current W/S energy price ratio of 1.2 for both the GS-1 and GS-2 rate classes (Exh. 4, PRC-6, p. 2/2 and PPC-3, p. 1/1).

22. Experimental Rate. The Company is proposing an experimental Time-Of-Day (TOD) pricing schedule for both the GS-1 and GS-2 customer classes (Exh. 4, PRC-1, p. 6/8). The experimental rate prices off-peak demand in excess of on-peak demand at 50 percent of the on-peak price. The Company states that it is introducing this tariff in an attempt to shift some current on peak demand to the off-peak period. MPC determines the on-peak period to be from 7:00 a.m. to 8:00 p.m. Monday through Friday, excluding holidays. MPC proposes limiting the experimental rate by offering the rate only to customers with recording demand meters and incremental loads greater than 1,000 kW (Exh. 3, pp. 16-18).

23. Irrigation. The Company is proposing to change the irrigation tariff by metering and pricing demand separately from energy. The Company determined that most irrigation customers with demand of 15 kW or more currently have demand meters installed, and analysis of billing data indicates that 3,800 kWh is an appropriate level of energy to associate with 15 kW (Exh. 3, p. 19). Accordingly, MPC redesigned the irrigation tariff with a demand charge for 15 kW demand or more. The Company is not proposing to charge demand metered customers for the first 15 kW of demand, proposing to recover the demand costs associated with the first 15 kW from demand and nondemand metered customers in the form of a higher energy price for the first 3,800 kWh of consumption per month (Exh. 3, p. 19).

24. MPC's current irrigation tariff includes a customer charge which is billed on a seasonal basis. The Company proposes increasing the customer charge, setting it at 48 percent of marginal cost, (or 65% of moderated marginal cost), (Exh. 3, p. 19).

25. MPC's proposed changes in the tariff will impact irrigation customers differently; low load factor irrigation pumps receive overall annual bill increases, and high load factor irrigation

pumps receive overall decreases. In terms of marginal cost pricing, some irrigation pumps will be moved in the direction of recovering a larger portion of the marginal cost associated with that pump, and some pumps will be moved in the opposite direction; recovering less marginal costs (MPC RDR PSC 3-22).

26. Lighting. The Company is not proposing to change the current rate structure of its street lighting, post top lighting, and yard lighting tariffs. However, MPC is proposing to tariff miscellaneous lights on a separate tariff. Miscellaneous lights, such as traffic control signals, beacons, and runway lights are currently priced on the General Service rate schedule. The Company is proposing to tariff a separate rate for miscellaneous lights, using the same methodology used for the other lighting classes, but pricing consumption on a kWh basis (Exh. 3, p. 24).

#### MCC Rate Design

27. MCC places rate moderation as its primary rate design priority. MCC indicates that the demand charges are its number two rate design priority, customer charges are third, and energy prices are its fourth priority (MCC RDR PSC-44).

28. Generally, MCC proposes tariffs based on the Company's proposals filed in its application. For example, MCC adopts the Company's customer charges for most of the customer classes, and uses the Company's proposed irrigation class demand prices in designing irrigation tariffs (Exh. 18, J.D.-6, p. 2/2). However, MCC's rate design proposals differ from the Company in that it retains the Company's current General Electric and Electric Contract class structure, and proposes demand prices which are not seasonally differentiated.

29. Residential. MCC's proposed residential tariff adopts MPC's proposed customer charge and includes seasonally differentiated energy prices. MCC proposes lowering the W/S price ratio of energy from the current ratio of 1.3 to 1.27 (Exh. 19, J.D.-4 p. 1/3).

30. Irrigation. MCC proposed an irrigation tariff which is based on the Company's proposals. MCC adopts the MPC's customer and demand charges, while proposing higher energy prices. MCC proposes higher energy prices to generate the 11.6 percent revenue increase proposed by Mr. Drzemiecki (Order No. 5340, Finding No. 92). Effectively, MCC proposes using the

Company's proposed demand and customer prices, and increasing energy prices to recover an 11.6 percent revenue increase (Exh. 19, J.D.-6).

31. General Service. The MCC's proposed General Service rate class is made up of MPC's current General Electric rate class. MCC proposes increasing the customer charge for this class from \$3.93 to \$6.06 per month. MCC also proposes increasing the price of demand and eliminating seasonality in demand charges. Like the Company, MCC does not propose a demand charge for the first 10 kW of demand. The MCC's proposed energy prices are seasonally differentiated with higher prices for the first 2,000 kWh consumed, to recover the cost of demand associated with the first 10 kW of demand. Additionally, MCC proposes an increase in the W/S energy price ratio from 1.20 to 1.32 for tailblock energy consumption (Exh. 19, J.D.-5, pp. 1/4, 2/4, and MPC's Application).

32. Electric Contract. The MCC's proposed Electric Contract (EC) rate class is made up of MPC's current EC rate class. MCC proposes decreasing the EC class' customer charge 1 from \$65.51 to \$6.06 per month, eliminating seasonal differentiation in the price of demand, and retaining the tariff's seasonally differentiated energy prices. Additionally, MCC proposes increasing the existing W/S energy price ratio from 1.2 to 1.35 (Exh. 19, J.D.-5, and MPC's Application).

33. Lighting. Mr. Drzemiecki recommends that the Company's current rate designs for the various lighting classes be retained and that each lighting class' revenue requirement be increased 11.6 percent (Exh. 18, p. 61, and TR p. 375).

#### HRC Rate Design

34. Dr. Power argues that the Company's COS study is only accurate enough to determine when rates are significantly out of line. Dr. Power states:

Customer classes whose rates are revealed by the cost of service analysis to be within five or ten percent of their allocated costs should be seen as paying appropriately cost based rates. Adjustment of a fraction of a percent or a few percentage points based upon a mechanical application of the cost of service results cannot claim to be cost-based (Exh. 16, p. 21).

Accordingly, Dr. Power recommends that the only tariffs needing adjustment are those of the Irrigation, Post Top Lighting, and Yard Lighting classes (Exh. 16, p. 20).

35. Dr. Power also addresses MPC's proposal to increase customer charges. Dr. Power recommends that the Commission not accept MPC's proposal to increase residential customer charges, arguing that customer charges keep MPC from fully reflecting capacity and energy costs (TR p. 314).

ASARCO et al. Rate Design

36. Mr. Michael recommends to the Commission that rates be designed to reflect costs, rather than to manage loads:

In developing seasonally differentiated rates, the Commission should give primary emphasis to rates that reflect system cost...Although rates can and should be used to "manage loads", such rates should first be cost based-(ASARCO et al. RDR PSC 1-4).

37. Mr. Michael's direct testimony centered on discrediting MPC's original proposal to consolidate the current General Electric and Electric Contract rate classes. In rebuttal testimony, Mr. Michael supports MPC's alternative rate design, considering it to be a more homogeneous grouping of customers than MPC's original proposal to consolidate classes (Exh. 24, p. 7).

Commission's Decision on Rate Design

38. Introduction. The Commission's pricing philosophy in this, as in prior dockets, attempts to achieve cost and allocative efficiency objectives. The Commission agrees with MCC when it states: "The use of marginal costs will lead to a rate structure that meets the objectives of encouraging conservation, efficiency, and equity." (Exh. 18, p. 12). In designing prices, the Commission believes that prices should reflect marginal costs to the greatest extent possible, and that departures from marginal cost pricing should follow inverse elasticity pricing rules (MDU Order No. 5219b, Finding No. 323; PP&L Docket No. 86.12.76, Order No. 5311, Finding Nos. 96, 97). Inverse elasticity pricing dictates that the product for which the elasticity of demand is greatest should be priced closest to marginal cost. As necessary, other prices are computed residually taking into account rate impacts. The Commission believes that, on average, the elasticity of demand for energy and capacity exceeds that for access (MDU Order No. 5219b, Finding No. 323).

39. The Commission notes that the COS study performed in compliance with Order No. 5340 is based on the resources contained in MPC's 1987 Avoided Cost Compliance Filing. The Commission believes that a balance between prices and avoided costs must be maintained. This balance is necessary because the Commission believes that the acquisition of new resources may be avoided in two ways; 1) qualifying facilities may elect to provide power at avoided cost prices, and/or 2) consumers may elect to forego consumption when faced with marginal cost prices reflecting the cost of new resources. If MPC's avoided cost prices were to change significantly, the Commission would expect MPC to file a COS/RD filing to reflect those changes in prices.

40. Rate Design Priorities. MPC places the following priority on the elements of rate design; 1) demand, 2) increase W/S differentials, 3) energy, and 4) rate moderation (see Finding No. 10). MCC recommends the following rate design priorities; 1) rate moderation, 2) demand, 3) customer charges, and 4) energy (see Finding No. 27).

41. The Commission notes that the Company's rate design priorities differ from those proposed in its last general rate case, Docket No. 83.9.67. In that docket, the Commission accepted the Company's proposal to prioritize rate design in the following manner; 1) energy, 2) demand, and 3) customer charges (Order No. 5051g, Finding Nos. 41 and 42). MPC justifies changes in rate design priorities on the grounds that:

1. The Company's resource plan shows the need for peaking capacity resources while it also shows short-term energy surpluses (Exh. 7, p. 8).
2. The allocated cost of service indicates that costs are higher in the winter season (Exh. 7, p. 6)
3. MPC currently has a surplus of energy: therefore energy can be priced closer to marginal cost (Exh. 7, pp. 8-10).

42. Dr. Power argues that the MPC's energy surplus depends on the development of qualifying facility (QF) resources that may or may not, develop (Exh. 16, p. 23). Dr. Power summarizes his position on the Company's proposal to switch the roles of demand and energy in rate design:

It (MPC) does not have a substantial or reliable surplus energy capacity. Furthermore, MPC's projections indicate that it expects energy prices to grow faster than peak load during the next twenty years. In addition, MPC projects declining capacity costs over the next several years and rising energy costs. That suggests something about the relative importance of these two aspects of electrical supply. Finally, the region, in general, tends to be energy constrained rather than capacity constrained. Incremental energy costs have been the costs that have been driving rates upward. Until it is convincingly shown that this situation has changed, electric rate design should not shift towards encouraging energy consumption (Exh. 16, pp. 22-23).

43. Table 1 shows the Company's prefiled and rebuttal general service rates. Also shown in Table 1 are the full marginal costs underlying each rate, and the rate as a percent of full marginal cost.

Table 1. MPC Rates and Marginal Cost Comparison

<u>Rate Schedule</u>	<u>Rate</u>	<u>Full M.C.</u>	<u>Rate As a % of M.C.</u>
<u>Prefiled Testimony</u>			
General Service			
Energy			
Winter:	.021562	.037003	58%
Summer:	.017968	.027128	66%
Demand			
Winter:	7.4468	25.61	29%
Summer:	4.8591	15.63	31%
<u>Rebuttal Testimony</u>			
General Service - 1			
Energy			
Winter:	.021368	.034540	62%
Summer:	.017807	.029034	61%
Demand			
Winter:	7.1220	17.96	40%
Summer:	5.2041	10.21	51%
General Service - 2			
Energy			

Winter:	.021256	.032583	65%
Summer:	.017713	.023806	74%
Demand			
Winter:	8.3098	12.07	69%
Summer:	4.0667	5.77	70%

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Source: Exh. 6, PEM-1, Exh. 1,

44. In virtually all cases, the Company places the emphasis of rate design on pricing energy closer to marginal cost than demand. The Commission finds that the Company, while stating that demand should be the first priority in rate design, has actually proposed rates which place the emphasis of rate design on energy.

45. The Commission agrees with Dr. Power's recommendations, and the Company's actual pricing practices (rather than its stated rate design priorities), and rejects the Company's proposed priorities for rate design. The Commission retains the Company's rate design priorities accepted in Docket No. 83.9.67 (see Finding No. 41).

46. Customer Charges. The Company and MCC have proposed increasing customer charges for most rate classes. The Commission agrees with Dr. Power that customer charges keep MPC from fully reflecting capacity and energy costs, suppressing efficient pricing of these components (see Finding No. 35). The Commission finds that increasing customer charges conflicts with its stated policy of inverse elasticity based departures from marginal cost pricing (see Finding No. 38). The Commission accepts Dr. Power's proposal to not increase the residential customer service charge (see Finding No. 35). Therefore, the Commission requires MPC to retain its current customer charges for all rate classes.

47. Residential. Table 2 compares the Company's and MCC's residential class marginal costs and proposed rate designs. The MPC's compliance residential marginal costs are also shown. MCC's season varies from the Company's, so a direct comparison can not be made between the MPC and MCC proposals. However, the Commission notes that the MPC's, MCC's, and the compliance filing all indicate that the W/S rate differential should be increased from the current rate, not decreased, as MCC is proposing (see Finding No. 29).

Table 2. Proposed Rates and Marginal Cost Comparison

	Customer Charge	Winter ¢/kWh	W / S	Summer ¢/kWh
<u>Montana Power Company</u>				
Current Rates	\$2.63	5.2732	1.30	4.0564
Marginal Cost	\$5.71	7.5936	1.61	4.7232
Proposed Rates	\$3.01	5.2366	1.40	3.7404
<u>Montana Consumer Counsel</u>				
Marginal Cost Bulk Power	\$3.84	4.6013	1.44	3.2003
Proposed Rates	\$3.01	4.8957	1.27	3.8484
<u>Montana Power Company Compliance</u>				
Marginal Cost	\$6.09	6.8664	1.46	4.7152
Compliance Proposed Rates	\$3.29	5.2406	1.40	3.7433

Source: Exh. 6, PEM-1, Exh. 1, Exh. 19, MPC's Compliance Filing dated June 7, 1988

48. The Commission agrees with the Company's proposal to increase the Winter/Summer (W/S) energy price ratio. However, the Company's proposal to set this ratio at 1.40 prices energy closer to marginal cost in the off-peak period (summer) than during the on-peak period (winter). The Commission believes that marginal cost pricing calls for setting prices closer to marginal cost during the winter, on-peak, season. Additionally, the Commission believes that the economic objective of efficient pricing is not to achieve a certain W/S differential, rather the W/S differential should achieve efficient pricing. However, the Commission notes that no party in this proceeding has proposed setting prices closer to marginal cost in winter. For this reason, the Commission requires MPC to set energy prices at an equi-percent of marginal cost in each season.

49. Table 2, shows the approximate resulting rate design required by the Commission's findings, and its relationship to marginal costs.

Table 2. Commission Ordered Rates versus Marginal Cost

	<u>Customer Charge</u>	<u>Winter ¢/kWh</u>	<u>W / S</u>	<u>Summer ¢/kWh</u>
Marginal Cost	\$6.09	6.9260	1.48	4.6898
Commission Required Rates	\$2.73	5.4060	1.48	3.6606
Percent of M.C.	44.85%	78.05%		78.05%

Note: Required rates calculated from July 22, 1988 compliance filing.

50. General Service. The Commission finds the Company's original proposal to consolidate the current General Electric (GE) and Electric Contract (EC) classes unacceptable. The proposed consolidation is clearly a move away from cost-based pricing (see Exh. 23, p. 11) and, as such, is converse to the Commission's philosophy regarding rate design (see Order No. 5311, Finding No. 94).

51. Similarly, the Commission finds the Company's current GE/EC rate class definitions, including MCC's proposed rate classes, equally unacceptable. The Commission agrees with the Company that crossover problems in the current class definitions need to be addressed and corrected (Exh. 7, p. 25).

52. The Commission believes that MPC's alternative rate design proposal, which redefines the current GE and EC classes into the GS-1 and GS-2 classes, tracks marginal costs more closely, and accepts the Company's alternative rate design proposal with the following changes. The Commission rejects the Company's proposal to set the price of demand at 85 percent of marginal billing demand costs. The Commission believes that the principles of rate moderation call for setting the price of demand no higher than MPC's moderated marginal billing demand costs (approximately 74 percent of marginal billing demand). The Commission requires MPC to set GS-1 and GS-2 demand prices

at moderated marginal billing demand costs. The Commission accepts MPC's proposal to set the GS-1 and GS-2 energy price ratio at 1.20 (see Finding No. 21).

53. The Industrial intervenors have recommended rerunning the COS study to reflect the new GS-1, GS-2 service definitions. Additionally, the Industrial Intervenors propose an adjustment to Base Rate Revenues to account for the shift of customers (Exh. 24, pp. 8-11). The Commission rejects the Industrial Intervenors' proposal to reduce MPC's revenue requirement. However, the Commission finds merit in their proposal to recalculate the COS reflecting the new rate classes. Therefore, the Commission requires MPC to rerun its COS study to reflect the new GS-1, GS-2 rate class definitions.

54. MPC calculates total marginal capacity costs by class using marginal costs times peak or noncoincident peaks (Exh. 5, PEM-1). MPC calculates marginal billing demand costs by taking total marginal capacity costs, by season, and dividing those costs by the units of demand billed in each season (Exh. 2, p. 11 of 77). Billing demand costs have little relationship to marginal costs, rather they are used for cost recovery. The Commission notes that if the price of demand were set at full marginal cost, demand would be priced efficiently at MPC's peak, which would only be a few hours of the year. The rest of the year, demand would be priced inefficiently, or priced too high. The Commission finds that pricing at moderated marginal billing costs results in prices which will be too low at peak, and may be too high during off peak periods. The appropriate level at which demand usage should be priced is an issue the Commission intends to revisit in future proceedings.

55. The Company's analysis indicates that 2,500 kwh per month is the appropriate amount of energy to associate with 10kw of demand for the GS-1 rate class (see Finding No. 20). Additionally, MPC indicates that 3,800 kwh is the appropriate amount of energy to associate with 15kw of demand for the irrigation class (see Finding No. 23). Although MPC's proposals were uncontested, the Commission is not convinced that these energy levels are set correctly, and it intends to revisit this issue in future proceedings.

56. Experimental Rate. The Commission approves MPC's request to tariff an experimental TOD rate for GS-1 and GS-2 customers. However, the Commission is not convinced that the discount is set appropriately. Neither is the Commission convinced that MPC has set the availability criteria

at the appropriate level. Therefore, the Commission requires the Company to perform a study which determines marginal capacity costs by time-of-day in its next general rate filing, and justify the availability criteria in this tariff. The Commission encourages MPC to explore other cost justified TOD rates for both demand and energy.

57. Irrigation. The Commission's last opportunity to review MPC's Irrigation Class rate design occurred in Docket No. 83.9.67. In that Docket, the Commission accepted irrigation tariffs that did not price demand separately, but included demand costs in the price of energy. At that time, the Commission touched upon the subject of pricing demand separately, for the Irrigation Class: "In the future, this class' rate design will likely be altered to include a demand charge." (Order No.5051f, Finding No. 77).

58. The Commission accepts MPC's and MCC's proposals to price demand separately from energy for the irrigation class. In doing so, the Commission notes that the Company's proposal is unopposed by any party in this proceeding. The Commission accepts the proposed irrigation rate design methodology, with one exception. The Commission is concerned that MPC's proposed methodology will move some irrigation pumps toward a fuller recovery or its marginal costs, and some pumps away from recovering its marginal costs (MPC RDR PSC 3-22). The Commission believes that placing the 11.6 percent increase in revenue requirement in the irrigation class' tailblock energy prices will dampen this effect. For this reason, the Commission requires MPC to place the 11.6 percent irrigation revenue requirement increase, as proposed by MCC and accepted by the Commission in Order No. 5340, Finding No. 103, in tailblock energy prices.

59. Lighting. The Commission notes that MPC's tariff proposals for its various lighting classes were uncontested in this proceeding. Therefore, the Commission accepts the Company's proposed methodology for determining tariffs for its various lighting classes.

## PART C

### ELECTRIC ECONOMIC INCENTIVE RATE

60. Background. In June, 1986, MPC requested Commission approval of an Electric Economic Incentive Rate (EEI) designed to, "provide electric service to Montana industry, which without the lower rate, would not be able to begin, or expand operations." (Exh. 13, p. 16). The

Company states that its objective in offering the EEI tariff is to provide a short term energy market for surplus energy and create incentives for economic development in Montana. More specifically, the EEI rate was designed in response to the potential for the resumption of mining in Butte by Montana Resources Inc. (MRI) (Exh. 13, p. 16).

61. The Company's only EEI customer, MRI, has a contracted energy rate which is based on an assumed off-system sales price of 22.10 mills per kwh, as established in the revenue requirement in Docket 84.11.71. The contract also contains a commodity adjustment clause which increases the price of energy when the price of copper and molybdenum exceeds average historical prices. Additionally, the contract allows MPC to interrupt 20 MW of the 48 MW MRI load from November through February (MPC RDR 3-28).

62. The EEI tariff does not contain a sunset date, or termination provision. However, there is a 120 day termination clause in the MRI contract and the Company has stated that the EEI rate would be available, "only for so long as the Company determines that has existing resources available to serve the additional load." (Exh. 13, p. 17).

63. The Commission's primary concern in Docket No. 86.6.29 was that MPC's EEI offering recover, at a minimum, the same level of revenues as opportunities for off-system sales. This concern resulted in the Commission's issuance of the following requirement:

The Commission finds that whenever the average revenues (per kwh) that could have been achieved from off-system sales exceed the actual revenues (per kwh) from an EEI customer's load, MPC's shareholders must make full compensation to all MPC's electric retail customers. (Interim Order No. 5215, Finding No. 9, Docket No. 86.6.29).

64. The Commission granted interim approval of the EEI tariff in Docket No. 86.6.29, Interim Order No. 5215.

#### MPC EEI Proposals

65. The Company is requesting final approval of the EEI tariff in this proceeding. Additionally, the Company is proposing to expand the availability of the EEI offering by reducing the current qualifying load size of 5 MW to 1 MW (Exh. 13, p. 19). The Company has indicated that it

knows of no customer which would currently qualify for this expanded offering (MPC RDR PSC 1-7).

66. The Company also requests that the Commission abrogate Finding of Fact No. 9 in Docket No. 86.6.29, Order No. 5215, which requires the Company to compensate retail customers if EEI sales are below off-system sales prices (Exh. 13, pp. 18-19). The Company's, Mr. Haffey, concludes:

The Commission erroneously assumed, in the interim order, that customers are forgoing a benefit (higher off-system revenues) through the EEI rate, that they otherwise would have received. (Exh. 13, p. 19).

#### MCC EEI Proposals

67. MCC contends that the EEI rate should only apply to interruptible service: The major deficiency with the proposed EEI language is that there are no provisions in the tariff requiring that the customers agree to take interruptible service as a condition for subscription to service under the rate (Exh. 18, p. 66).

68. MCC proposes that the Company be required to submit the following information to the Commission on a monthly basis, in order for the Commission to determine if the EEI and the Electric Industrial Retention/Interruptible (EIRI) rates are providing the intended results:

1. The incremental revenues realized by the Company from sales under each rate.
2. The incremental wholesale cost of capacity and energy incurred by MPC in order to serve the individual loads.
3. The incremental costs associated with the line losses attributable to the increased wholesale capacity and energy costs possibly incurred under each rate.
4. The monthly customer costs associated with the provision of service under each rate.

Source: (Exh. 18, p. 68-69).

Additionally, MCC proposes that MPC be required to submit, on an annual basis, a listing of all direct or indirect investments actually made by the Company as a result of service under each rate.

69. MCC proposes that any EEI customer be required to pay at least 1.2 times the variable cost of any resource used to meet EEI load (generation and purchases) at all times, or face the possibility of, "having its service terminated" (Exh. 18, pp. 67, 65). Lastly, concerned that earnings

deficiencies caused by the EEI tariff may lead to general rate increases, MCC proposes that provisions be included in the EEI tariff which would automatically deny any portion of a rate increase that would be attributable to a deficiency in earnings caused by the rate (Exh. 18, p. 73). That is, MPC's shareholders should absorb the difference between the EEI rate and the otherwise applicable tariff. MCC recommends that any cost sharing of the deficiency take place only as a last resort (Exh. 18, p. 76).

#### HRC EEI Proposals

70. Generally, Dr. Power concludes that the EEI rate will draw permanent loads, not "temporary" loads, which will accelerate the date at which MPC will have to acquire costly new resources. Dr. Power further concludes that more expensive resources will raise prices to all MPC customers and drive the "temporary" electric load off MPC's system. In turn, prices will increase further, generally depressing the state's economy (Exh. 16, p. 5). Dr. Power cautions the Commission; "be very careful about limiting promotional rates to situations where we are certain they will not accelerate the building of new facilities and force rates upward." (Exh. 16, p. 59).

71. Dr. Power argues that the "surplus" that MPC is trying to market through the EEI rate is almost nonexistent: "It is built around assumptions about the availability of QF production that have thus far proved to be in error." (Exh. 16, p. 66). Dr. Power also cites the 1986 Northwest Conservation and Electric Power Plan's medium high growth rate of 1.5 percent to support his argument. Under the Plan's medium high forecast, the region will need additional resources in the early 1990's (Exh. 16, p. 61).

72. Another of Dr. Power's concerns centers on the lack of a termination clause in the EEI tariff. Dr. Power points out that MPC indicates that after the surplus ends, "Customers who are unable to survive without the benefit of the EEI rate must surrender to the laws of economics and be content to discontinue their operations in view of the economic forces affecting their particular competitive environment." (Exh. 10, p. 8). Dr. Power argues:

This is not the attitude that MPC took towards Stauffer before it was able to provide a cost justification (interruptibility) for its special low takes toward MRI load in the early 1990's (Exh. 16, p. 54).

Additionally, Dr. Power argues that any effort by MPC to end the EEI tariff will meet resistance though lobbying efforts directed at the Commission to retain the EEI price structure (Exh. 16, p. 54).

73. Dr. Power characterizes the EEI rate as "rob Peter to pay Paul." He maintains that, if rates can be lowered to one set of customers only by raising rates to other customers, then any economic development encouraged by the lower rate will be offset by the economic activity that is discouraged by higher rates (Exh. 16, p. 43). Dr. Power recommends that EEI loads be committed to pay incremental cost prices, now in the current surplus when incremental costs are low, and in the future when the surplus is gone and incremental costs are high (Exh. 16, p. 54).

74. Instead of promoting power usage through "promotional" programs like the EEI tariff, Dr. Power believes that MPC should be marketing power through conservation programs. The witness contends, "rational promotion of electricity and conservation are not in conflict." (Exh. 16, p. 66):

I would urge the Commission to direct MPC to continue with this conservation program (Energy Share) and approve a financing mechanism so that conservation investments do not appear to MPC to be wasted or lost dollars (Exh. 16, p. 69).

#### Commission's Decision on EEI

75. Although MCC and HRC are proposing changes in the EEI tariff, no party in this proceeding is proposing to discontinue the tariff. Therefore, the Commission grants final approval of the EEI tariff subject to the following requirements.

76. Order No. 5215, Finding of Fact No. 9. The Commission will first address the Company's request to abrogate Finding of Fact No. 9 in Docket No. 86.6.29, Order No. 5215, which requires the Company to compensate retail customers if EEI sales are below off-system sales prices (see Finding No. 63). The Commission believes that the EEI rate should recover MPC's marginal opportunity costs at all times, and that when MPC chooses to serve EEI load, it gives up the opportunity to either; 1) reduce system lambda costs, or 2) sell power off-system at the margin. MCC's concern that MPC cover its marginal opportunity costs is evidenced in its recommendation to require any EEI customer to pay at least 1.2 times the variable cost of any resource used to meet EEI load (generation and purchases) at all times (see Finding No. 69). Accordingly, the Commission

rejects the Company's request, and upholds Finding of Fact No. 9 in Docket No. 86.6.29, Order No. 5215.

77. The Commission agrees with MCC when it recommends that interruptibility be a condition for service under the EEI rate (see Finding No. 67). Furthermore, the Commission agrees with Dr. Power when he states MPC is trying to market a surplus which is based on tentative QF development. (See Finding No. 71). Accordingly, the Commission requires MPC to place criteria in the EEI tariff which will make the rate available only to interruptible loads.

78. EEI cost sharing is another concern the Commission will address. In his original testimony MCC's Mr. Drzemiecki recommended that MPC should bear the cost of the discount and that cost sharing with ratepayers should take place only as a last resort (see Finding No. 69). Additionally, MCC cites the Commission's cost sharing decision in MPC gas Docket No. 85.7.32, on an interim basis. The Commission believes that it is appropriate for MPC shareholders to share the cost of EEI tariffs with ratepayers. Therefore, the Commission requires MPC to compensate ratepayers for 10% of the difference between EEI rates and the otherwise applicable tariff.

79. Termination. Much of MCC's and HRC's recommendations to the Commission concern the termination of the EEI rate, although neither party has proposed a specific termination provision. The Commission believes that MPC should retain the freedom to offer the EEI rate for interruptible, incremental loads as long as the general body of ratepayers are not adversely effected. For this reason, the Commission finds that the termination clause included as a part of the MRI contract must be included in the availability section of the EEI tariff.

80. MCC's original COS study included the MRI load associated with the EEI tariff. Under cross examination, MCC changed its recommendation, stating: "That it might be appropriate in the next revenue requirements case to require the Company to file a cost of service study showing the EEI customers as a separate class of service." (TR p. 376). The Commission agrees with MCC's recommendation and requires MPC to include EEI load as a separate rate class in its next general filing. The Commission has required MPC to tariff firm EEI load under GS-2 rates (see Finding No.

77). The Commission believes this requirement should be reflected in COS and requires MPC to rerun its COS study to reflect firm MRI load.

#### PART D

#### ELECTRIC INDUSTRIAL RETENTION/INTERRUPTIBLE RATE

##### Background: EIRI

81. Background. In September, 1985, MPC requested that the Commission approve an Electric Industrial Retention/Interruptible Rate (EIRI) designed to retain the 80 MW electrical load associated with the Stauffer Inc. phosphorus plant at Silver Bow Montana. The rate was designed to encourage Stauffer to increase usage while providing MPC with a 74 MW peaking resource through interruptible provisions. The Stauffer contract allows MPC to interrupt up to 74 MW of capacity for up to 800 hours per year. MPC can interrupt Stauffer for up to 24 hours with 5 minutes notice, 24-60 hours with 5 hours notice, and with 72 hours notice it can interrupt Stauffer more than 60 hours (Exh. 10, p. 6). The Commission granted interim approval of the EIRI rate in Docket No. 85.9.40, Interim Order No. 5059.

##### MPC EIRI Proposals

82. The Company is requesting final approval of the EIRI rate, without changes, in this proceeding. The Company justifies the EIRI rate on the grounds that Stauffer is making positive contributions to the Company's fixed costs. It also argues that if the Stauffer load had been lost, the Company's other rate payers would have had to pick up those fixed costs (Exh. 19, p. 14).

83. To further justify the EIRI rate, MPC compares the "cost" of the Stauffer discount to the cost of a BPA capacity purchase. The Company indicates that the "cost", or foregone revenues, is approximately \$3.2 million, while the cost of a BPA capacity purchase is approximately \$5.3 million. Therefore, the Company concludes that the Stauffer rate has proved beneficial (Exh. 11, pp. 3-5).

84. The Company is not requesting recovery of the difference between the revenues expected from Stauffer on the Electric Contract (EC) rate and those realized under the EIRI rate in this proceeding (Exh. 13, p. 15). The Company has included the entire Stauffer load in its COS study which makes it appear, for the purposes of recovering the revenue requirement, as if Stauffer is paying

the same rates as other EC customers. However, MPC considers the lost revenue a legitimate business expense, and may seek to recover those "costs" in future filings (MPC RDR PSC 3-51).

#### MCC EIRI Proposals

85. As with the EEI tariff, MCC is proposing that the Commission require Stauffer to pay at least 1.2 times the variable cost of any resource used to meet EIRI load (generation and purchases) at all times, or face the possibility of, "having its service terminated" (Exh. 18, pp. 64, 65). Additionally, Mr. Drzemiecki proposes that provisions be included in the EIRI tariff which would automatically deny any portion of a rate increase attributable to a deficiency in earnings in the EIRI rate (Exh. 18, pp. 73, 74).

86. MCC characterizes the contract provision which allows Stauffer to purchase replacement power during an interruption as, "unfair to existing customers," noting that Stauffer could receive firm service without having to pay the full costs that other customers have to. As a result, MCC recommends that the Commission require Stauffer to pay the greater of replacement power costs, or comparable firm service charges during an interruption (Exh. 18, pp. 65, 66).

87. MCC also cautions the Commission regarding future EIRI type interruptible rates:

The problem with granting the same credit to other customers is that the value of interruptibility of these customers may be less than it is for Stauffer...these customers should receive lesser rates, simply because their interruptibility would be less valuable (Exh. 18, p. 70).

#### HRC EIRI Proposals

88. Dr. Power does not object to MPC's proposal to tariff an interruptible rate to Stauffer, even though he characterizes it as an "incentive" rate (Exh. 16, p. 71):

Interruptible credits are a common practice in the setting of industrial rates. The use of an industrial load in place of capacity reserves makes sense. The key question is the appropriateness of the credit provided.

In the case of the Stauffer rate, as the title of the tariff suggests, the rate has two functions: to credit Stauffer for agreeing to allow its load to be interrupted, and to give Stauffer a price break so that its load would stay on the system at a level higher than it otherwise would be (Exh. 16, p. 81).

89. Dr. Power argues that the Company's calculation of Stauffer's contribution to fixed costs is overstated, although he does agree that Stauffer's contributions are positive (Exh. 16, p. 80).

Commission's Decision on EIRI

90. Before presenting its findings, the Commission would first like to address the issue of the interruptible "credit" brought up by MCC and HRC, but which neither party has assigned a value to. As Dr. Power previously testified, the Stauffer rate has two aspects, interruptibility, and retention. Both of these components are included in foregone revenues associated with the EIRI rate, which MPC calculates to be approximately \$3.2 million (Exh. 11, pp. 3-5).

91. MPC looks at the cost of a 75 MW capacity purchase from BPA under SP-85 rates, \$5.3 million, and concludes that the contract is beneficial (Exh. 11, pp. 3-5). The Commission finds the Company's analysis misleading. MPC's Loads and Resources plan lists Stauffer's peak load at 80 MW prior to the 1987 Plan. The 1987 Plan reduced Stauffer's load to 70 MW, and lists the capacity available from Stauffer through interruption at 64 MW (MPC RDR PSC 3-47). Furthermore, BPA's rates have changed as a result of its 1987 rate case, making the SP-85 rate used to calculate the BPA capacity purchase obsolete (see MPC RDR PSC 3-31). The Commission calculates the cost of a 65 MW BPA capacity purchase under SP-87 rates to be approximately \$3.75 million. Finally, the Commission agrees with Dr. Power when he states that MPC should not be using BPA for a cost comparison, because MPC does not plan to acquire BPA capacity, instead relying on cheaper resources listed in its 1987 Plan (Exh. 16, p. 79). Dr. Power points to the Company's 1987 Plan, and concludes that MPC plans to obtain Washington Water Power capacity, and refurbish its Bird plant for much less than the cost of BPA capacity (Exh. 16, pp 79-80).

92. The Commission believes that the proper measure of the value of Stauffer interruptibility may be MPC's avoided costs. Through data requests, the Commission asked MPC to provide the Company's cost benefit analysis using its avoided cost rates [MPC RDR PSC 2-56). MPC declined to perform the analysis requested. However, MCC calculated the cost of a 76 MW capacity purchase using MPC's 1987 avoided costs, stating that it may be a reasonable benchmark for use in determining the appropriateness of the EIRI rate (MCC RDR PSC 36). MCC calculates the cost of a 76 MW purchase, using MPC's 1987 avoided cost rates, at \$2.9 million. Using the same

methodology presented by MCC, the Commission calculates the cost of a 64 MW capacity purchase to be \$2.5 million. Furthermore, the Commission believes that the cost of 64 MW at avoided cost rates represents an upper bound for the value of Stauffer interruptibility, as the Company should not pay more than its avoided costs for new resources.

93. Using the MCC's analysis, the Commission finds that retaining Stauffer as a MPC customer costs approximately \$700,000 annually.

64 MW @ Avoided Cost	\$2,496,902
Foregone Revenues	\$3,186,439
	-----
Cost of Retention	(\$689,537)

However, the Commission finds that this cost is offset by Stauffer's contributions to fixed costs in the amount of approximately \$4.25 million annually (MPC RDR PSC 1-12).

94. The Commission is disappointed by the lack of EIRI cost benefit analysis presented by the parties in this proceeding, and it intends to revisit this issue in subsequent dockets. Specifically, the Commission would like to quantify the "cost" of retention versus the "value" of interruptibility.

95. The Commission agrees with the MCC's argument that the "value" of interruptibility will change with new EIRI customers (see Finding No. 87). The Commission believes that the value of interruptibility may rise or fall in the future. Therefore, the Commission does not expect MPC to discount future EIRI load at the same level as Stauffer.

96. The Commission would also like to comment on Mr. Haffey's "no growth" argument. Mr. Haffey states that, "Stauffer is an existing customer and continuing it on the system does not obviously, require any new resources. (Exh. 14, p. 5). The Commission believes that the firm portion of Stauffer's load is no different than any other MPC firm load, and its existence on MPC system displaces the opportunity for MPC to use those resources to serve other customers. Any firm load, including Stauffer's, will eventually cause MPC to acquire new peaking resources. Furthermore, the Commission believes that Stauffer interruptibility will cause only a brief pause in MPC's need to acquire peaking resources, and will have little effect on MPC's future needs to acquire energy resources.

97. The Commission notes that no party in this proceeding is proposing to discontinue the EIRI rate. The Commission finds that the Stauffer EIRI rate provides positive benefits to MPC in the form of peaking capacity and positive contributions to fixed costs. Additionally, the Commission notes that MPC is not proposing to place the cost of the EIRI tariff on MPC customers in this proceeding. Therefore, The Commission grants final approval of the EIRI tariff.

98. MPC has included the EIRI load in the COS study. The Commission believes this treatment is appropriate as long as MPC is not proposing to recover the cost of the EIRI discount from ratepayers. At such time MPC requests recovery of the EIRI discount, the Commission requires MPC to; 1) file comprehensive EIRI cost benefit analysis quantifying the "cost" of the discount and the "value" of retention, and 2) file a COS study defining EIRI load as a separate rate class. Such a rate class would include all EIRI energy, but only firm EIRI capacity.

## PART E

### Least Cost Planning

99. The Commission would like the opportunity to respond to the issue of Least Cost Planning introduced by HRC witness Dr. Power during rebuttal testimony in this proceeding. The HRC's Least Cost Planning recommendations will be presented first, followed by the Company's response, and the Commission's decision.

100. Dr. Power, concerned over the confusion regarding MPC's resource plan, and in particular the future role of Colstrip 4 in that resource plan, has recommended that the Commission require MPC to engage in Least Cost Planning:

MPC's future resource plans have not been clearly specified by the utility. That makes it difficult or impossible to calculate the long run incremental costs that are necessary for rate design and evaluation. My testimony will suggest that this Commission correct this lack of information on resource plans and cost analysis by requiring MPC to develop and submit for review by this Commission an integrated least cost resource plan (Exh. 17, p. 1).

101. Dr. Power points out that MPC's latest Financial and Statistical Data report includes Colstrip 4 as a possible resource. Dr. Power argues that a least cost plan would help solve the problem of whether Colstrip 4 would be used as a resource to serve native load:

The possibility that Colstrip 4 might be used to serve native load raises several questions. At what price to consumers will Colstrip 4 provide that service? How does the cost of Colstrip 4 compare to the cost from other sources? What long run commitment is MPC or this Commission making when Colstrip 4 is used to serve native load (Exh. 17, p. 9).

102. MPC responded to the least cost planning issue, and the role of Colstrip 4 in its resource plan, during cross examination by MCC. Mr. Haffey explained the role of Colstrip 4 purchases in its September, 1987, Financial and Statistical Data report:

I can tell you that this document where it refers to Colstrip 4, uses Colstrip 4 as a surrogate for the lowest cost resource we can make available to ourselves to satisfy these--to serve these additional--these markets that result from the marketing program...It might, in fact, be Colstrip 4 power if Colstrip 4 power is made available to us at a price that meets or beats what otherwise is available. (TR p. 201).

103. Under further cross examination by Ms. Probasco, for the HRC, Mr. Haffey explained under what conditions MPC might seek to recover the cost of Colstrip 4.

Q. I'm asking if you foresee anytime in the future wherein Montana Power might seek to recover the full costs of Colstrip 4 from its customers?

A. Yes, and let me explain. It's possible, and I can't put a probability on it, but I think that it is very possible that in the future Montana Power will need to make available to itself as part of its resource stack, as Mr. Leland might have referred to it, additional acquired resources to serve our firm market. And it might be that the price we have to pay for the additional acquired resources is at a level that's equal to or greater than the fully distributed costs of Colstrip Unit 4. And if then we are well advised to--well, we should be well advised to pay that price if that was the least cost resource available. And if Colstrip 4 power is available to us, if there is a willing seller available, we would be a willing buyer. If it meets or beats what otherwise we have to make

available to ourselves to serve our market, we are going to be satisfying the least cost resource criterion, and Colstrip 4 might coincidentally be the power that's available to us. And we would be paying what would be a price that would be the equivalent of the fully distributed cost that the seller is incurring for their marketing obligation of Colstrip 4, which, as we know, is the Montana Power Company Corporation anyway. But it would have to be at a market price that meets or beats what otherwise we could make available to ourselves for the term or terms of the life of the power and conditions under which we need it for our firm market. So, you know, characterizing that way, I think it's entirely possible (TR pp. 205-206).

#### Commission's Decision On Least Cost Planning

104. The Commission believes that least cost planning is an issue which is beyond the scope of this proceeding. The Commission takes into consideration the HRC's request, but does not find it necessary for MPC to submit a least cost resource plan at this time. However, the Company has established that it will only acquire resources that are least cost.

105. The Commission notes that the testimony of Mr. Haffey indicates the MPC's dedication to least cost planning on the supply side. The Commission also notes that MPC has also undertaken, to some extent, an active role in demand side least cost planning in this rate case. In the following discussion, the Commission would like to emphasize the role of demand side planning in a least cost planning process.

106. Demand side least cost-planning. The Commission recognizes that MPC's rate structure is probably the most powerful demand side management tool it has available. However, the Commission wishes to emphasize that the primary objective of rate design is marginal cost based prices. The closer that prices reflect costs on a customer, day-to-day (seasons), and Time-of-Day (TOD) basis, the more consumers make efficient choices regarding consumption. The Commission believes that load management through rates will occur if prices reflect marginal costs to the fullest extent possible.

107. The Commission would also like to comment on the Company's interruptible rate, the EIRI rate. Although the Company has admitted that one of its stated objectives in offering the rate was to retain a valued customer, MPC has also obtained a peaking resource through interruptibility. The

Commission is confident that MPC has other opportunities to acquire peaking capacity through interruptibility, although the Commission believes that not all sources have to be as large as Stauffer. For example, an optional residential TOD, demand-metered rate would provide a method to manage load while pricing closer to marginal cost. Interruptible water heaters also provide a source of capacity.

108. MPC's proposal to tariff an experimental TOD rate for large loads in the GS-1 and GS-2 service classes also represents an opportunity for demand side least cost planning. The Commission finds that TOD rates have merit primarily on the basis of tracking marginal cost more closely, but they also provide opportunities for load management. The Commission encourages MPC to expand its offering of TOD rates to other rates where costs vary significantly by TOD.

#### CONCLUSIONS OF LAW

1. The Applicant, Montana Power Company, furnishes electric service to consumers in the State of Montana and is a "public utility" under the regulatory jurisdiction of the Montana Public Service Commission. Section 69-3-101, MCA.

2. The Commission properly exercises jurisdiction over the Applicant's rates and operations. Section 69-3-102, MCA and Title 69, Chapter 3, Part 3, MCA.

3. The Commission has provided adequate public notice of all proceedings and an opportunity to be heard to all interested parties in this Docket, Title 2, Chapter 4, MCA.

#### ORDER

1. The Montana Power Company shall file a cost of service study in compliance with this Order, including all relevant workpapers.

2. The cost of service study shall comport with all Commission determinations set forth in Order No. 5340, Order No. 5340a, and this Order.

3. The cost of service study shall be reconciled in compliance with Order No. 5340.

4. The Montana Power Company shall design rates in compliance with this Order.

5. The rates designed shall comport with all Commission determinations set forth in this Order.

6. All other motions or objections made in the course of these proceedings which are consistent with the findings, conclusions, and decision made herein are Granted, those inconsistent are Denied.

6. The cost of service and rate design required by this Order shall be received no later than twenty-one (21) days after issuance of this Order.

DONE AND DATED at Helena, Montana this 8th day of August, 1988 by a 3-2 vote.

BY ORDER OF THE MONTANA PUBLIC SERVICE COMMISSION

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CLYDE JARVIS, Chairman

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HOWARD L. ELLIS, Commissioner

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TOM MONAHAN, Commissioner  
Dissenting. Dissent attached.

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DANNY OBERG, Commissioner

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JOHN B. DRISCOLL, Commissioner  
Dissenting. No dissent written.

ATTEST:

Carol A. Frasier  
Commission Secretary

{SEAL}

NOTE: Any interested party may request that the Commission reconsider this decision. A motion to reconsider must be filed within ten (10) days. See 38.2.4806, ARM.

DISSENT  
DOCKET 87.4.21  
ORDER 5340 - ORDER 5340a

COMMISSIONER MONAHAN

I am dissenting from these orders because I feel strongly that their entire thrust is in the wrong direction. Rather than averaging, equalizing and leveling rates and charges, these orders continue the Commission's mistaken drive to Balkanize tariffs.

Specifically, this docket extends, rather than eliminates, seasonal differences, irrigation rates and service charges.

Before ratemaking was done by formula and by whatever current economic theory happened to be popular, seasonal differences simply did not exist. It was recognized by anyone who gave a moment's thought to the subject that where there was any appreciable amount of hydro-electric power or where fuel costs changed seasonally, it cost more to produce power in the winter than in the summer. It was also recognized that since power bills naturally were substantially larger in winter due to heating costs and extended hours of darkness, it was logical and intelligent to average the winter and summer costs so the annual return to the utility was the same, but that the winter bill was minimized. This was not only achieved by maintaining one rate throughout the year, there were leveling programs offered in which the customer could pay an average bill throughout the year to moderate the impact of large winter bills. With seasonal differentials, we now have the bizarre result that while the customer is still offered a budget billing program to minimize winter bills, at the same time his winter bill is increased in the name of some esoteric ratemaking formula. Further, we have guaranteed rate shock every year when the winter rate kicks in. It would seem that with the existing work load, the Commission would do all possible to cut down complaints, rather than introducing a mechanism to insure yearly outrage. The orders in this Docket not only perpetuate the problem, but actually increase the winter season from 4 to 5 months, with the shift of March from summer to winter rates.

There is little, if any justification for increased irrigation rates. Two factors argue that irrigation rates should be actually lower than they are, rather than increasing. First, irrigation was aggressively sold by the power company for many years. A major part of the marketing program

was the low power rate. Farmers and ranchers made substantial investments in wells, pumps and sprinklers based upon the rates that were offered to them. At that time there was no reference to any cost of service study which could increase their rates. The person accepting the irrigation proposal naturally expected normal cost increases in the price of power, but he did not expect, nor was he warned, of any increase because of a change in ratemaking philosophy. It simply is not fair nor ethical to subject him to an increase, in fact unilaterally changing the terms of the contract, after he has committed his entire livelihood to sprinkling. The other factor which should be considered is that irrigation is a summer power requirement. This is significant because since Montana Power Company is a winter peaking company, it can easily be argued that there is not one dime of capacity built for the needs of the irrigator. Every inch of transmission cable, every generator, every ' substation, every transformer and every employee would be needed if there was not an irrigator on the system. The system was built to meet the needs of home, commercial and industrial heating and lighting. Irrigation is an after-the-fact market which consumes excess electricity during a season of surplus and reduces the rates of the consumers for whom the system was built.

Thoughtful and concerned Montanans have resisted the imposition of a sales tax for more than two decades. Their rationale is simple. It is a totally unfair tax. In 1788 George Mason described the poll tax, identical in impact and meaning to a sales tax, with a clarity and force which makes it odious to this day. He said, "They may lay a poll tax. This is simple and easily collected, but it is of all taxes the most grievous. Why the most grievous? Because it falls light on the rich and heavy on the poor. It is most oppressive, for if the rich man is taxed, he can only retrench his superfluities; but the consequence to the poor man is that it increases his miseries."

The service charge imposed by this Commission is identical in consequence to a poll tax or sales tax. It too falls light on the rich and heavy on the poor! If the service charge were \$3.00, a bill for \$20.00 would be comprised of 85% for electricity and 15% for the service charge. A bill for \$100.00 would be 97% for electricity and only 3% for the service charge. Obviously, assigning a significant portion of the company's dollar needs to a fixed charge means a greater proportion is being paid by those using less power. It is socially unacceptable!

Dr. Power, witness for District XI Human Resource Council, made it very clear that he believes there is no economic basis for a service charge or a seasonal adjustment. In part he argues that inherent inaccuracies in forecasts used in marginal cost studies limit the application of the results of those studies. That's an academic way of saying a guess is a guess and that the forecasts are kissing cousins to the forecasts which brought us Colstrip 3 & 4 and the 5 Whoops plants. Contrary to the suggestion in Finding of Fact 46 in this order, that Dr. Power simply recommended that customer charges not be increased, on pages 313 and 314 of the transcript in Docket 87.4.21, he makes it very clear that he would prefer that there be no customer charge at all! In response to a question about the economic rationale for service charges, Dr. Power said that he had long argued that except in unusual circumstances there is very little economic justification for these sort of fixed charges. He went on to say, "If you are trying to restrain customer access to the system because you don't think everybody should have access, or because there is very high costs associated with allowing them access and you have no social reason to want them to have access, there is just -- the customer charge, at least certainly at the levels that are being used by utilities in Montana, serves no function. It's not enough to discourage people from being on the system. It keeps you from fully reflecting capacity energy costs. In that sense, it's a pointless tax. It's a pointless head tax that doesn't allow you to accomplish some of the primary economic functions which I think is to try to get people to use electricity well and efficiently. It distracts you from that, and then does have the equity impacts that you point out."

Dr. Power further addressed the social impacts of a service charge with his comments upon equity, "and I have insisted on adding another twist to that equity impact is that smaller users are often people that are elderly people on fixed income or they are lower-income households. That although there is nothing like a perfect correlation there, the small users are disproportionately low income users and again that makes that head tax all the more inappropriate."

This order is sacrificing common sense and ethical ratemaking for the sake of incomprehensible formulae and should be rejected out of hand. I urge my fellow Commissioners to rethink their positions on the constant stratification of rates and return with me to ratemaking for the greatest good of all ratepayers.

I dissent from orders 5340 and 5340a.

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Tom Monahan  
Commissioner